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PATENT TRADEMARK OFFICE

Docket No: 2640/1G820US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Eitan T. WIENER et al.

Serial No.: 09/975,127

Art Unit: 3731

Confirmation No.: 1298

Filed: October 10, 2001

Examiner: PANTUCK, Bradford C.

For: **APPARATUS AND METHOD FOR ALERTING GENERATOR FUNCTIONS IN AN ULTRASONIC SURGICAL SYSTEM**

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MARK-UP FOR AMENDMENT OF JUNE 26, 2003
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June 26, 2003

Mail Stop Non-Fee Amendment
Commissioner for Patents
PO Box 1450
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Sir:

IN THE SPECIFICATION:

On page 13, delete the first paragraph and insert the following new paragraph:

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FIG. 1 is an illustration of a system for implementing surgical procedures according to the invention. By means of a first set of wires in cable [20] 26, electrical energy, i.e., drive current, is sent from the generator console 10 to a handpiece 30 where it imparts ultrasonic longitudinal movement to a surgical device, such as a sharp end-effector 32. This blade can be used for simultaneous dissection and cauterization of tissue. The supply of ultrasonic current to the hand piece 30 may be under the control of a switch 34 located on the hand piece, which is connected to the generator in the generator console 10 via wires in cable 20. The generator may also be controlled by a foot switch 40, which is connected to the generator console 10 by another cable 50. Thus, in use a surgeon may apply an ultrasonic electrical signal to the hand piece, causing the blade to vibrate longitudinally at an ultrasonic frequency, by operating the switch 34 on the hand piece with his finger, or by operating the foot switch 40 with his foot.

On page 20, delete the second paragraph and insert the following new paragraph:

FIG. 4 is a diagram that illustrates a non-volatile memory 400 in the sheath of the end-effector according to the invention. The memory 400 is advantageously provided in the sheath of the end-effector for reducing unneeded complexity in electrical isolation configurations which contribute to increases in costs, complications in cross-talk noise issues, and adversely affects the ergonomic performance of the hand piece 30. By placing the memory 400 in the sheath of the end-effector, adequate electrical isolation of the circuitry in the memory 400 from the hand piece 30, the human operator thereof, and the patient is readily achieved. Also, the number of wires in cable [20] 26 can be reduced.

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IN THE CLAIMS:

1. (Amended) A system for implementing surgical procedures comprising:
 - an ultrasonic surgical hand piece having an end-effector with a sheath wherein the end-effector is selected from the group consisting of a blade, shears, scissors and forceps;
 - a generator console for controlling the hand piece, wherein the console sends a drive current to drive the hand piece which imparts ultrasonic longitudinal movement to the blade; and
 - a memory disposed in the sheath of the end-effector which optimizes operation of the generator console for operation with the end effector to achieve optimal tissue effects with the end effector, wherein the console reads information stored in the memory to determine whether a copyrighted data string is present;
what is it doing to optimize the operation?
 - wherein the hand piece is authenticated for use with the console if the data string is present.
optimize - to make as perfect or effective as possible (computer) to increase the efficiency of
2. (Amended) A system for implementing surgical procedures comprising: an ultrasonic surgical handpiece having an end-effector,
 - a generator console for controlling the hand piece wherein the console sends a drive current to drive the hand piece which imparts ultrasonic longitudinal movement to the end-effector; and

a memory disposed in a portion of the end-effector selected from the group consisting of a grip, handle and mounting, said memory optimizing the generator console for operation with the end-effector to achieve optimal tissue effects with the end-effector,

wherein the console reads information stored in the memory to determine whether a data string is present;

wherein the handpiece is authenticated for use with the console if the data string is present.

3. (Amended) A system for implementing surgical procedures comprising:

an ultrasonic surgical handpiece having an end-effector;

a generator console for controlling the handpiece, wherein the console sends a drive current to drive the handpiece which imparts ultrasonic longitudinal movement to the end-effector; and

a memory disposed [with] within a [blade mounting hub] sheath of the end-effector which optimizes the generator console for operation with the end effector to achieve optimal tissue effects with the end-effector,

wherein the console reads information stored in the memory to determine whether a data string is present, wherein the handpiece is authenticated for use with the console if the data string is present.

9. (Amended) A [The] system for implementing surgical procedures comprising:

an ultrasonic surgical handpiece having a detachable end-effector;

a generator console for controlling the handpiece, wherein the console sends a drive current to drive the handpiece which imparts ultrasonic longitudinal movement to the end-effector; and

a memory disposed [with] within the end-effector, which optimizes the generator console for operation with the end-effector to achieve optimal tissue effects with the end-effector wherein the console writes historical usage and diagnostic information and configuration information into the memory;

wherein the diagnostic information are selected from the group consisting of number of activations, duration of activations, number of uses with substantial time between use, diagnostic error codes, enable use, disable use, serial number of the generator console, and serial number of the handpiece.

10. (Amended) A system for implementing surgical procedures comprising:

an ultrasonic surgical handpiece having a detachable end-effector selected from the group consisting of a blade and shears;

a generator console having a digital signal processor (DSP) for controlling the handpiece, wherein the console sends a drive current to drive the handpiece which imparts ultrasonic longitudinal movement to the end-effector; and a memory disposed in the end-effector which optimizes the generator console for operation with the end-effector to achieve optimal tissue effects with the end-effector,

wherein the console reads the memory and determines if the end-effector has been disabled for disabling the console from driving the end-effector.

12. (Amended) A system for implementing surgical procedures comprising:
an ultrasonic surgical handpiece having an end-effector selected from the group consisting of a blade and shears;
a generator console having a digital signal processor for controlling the handpiece, wherein the console sends a drive current to drive the handpiece which imparts ultrasonic longitudinal movement to the end-effector; and
a memory disposed with the end-effector which optimizes the generator console for operation with the end-effector to achieve optimal tissue effects with the end-effector,
wherein the console reads information stored in the memory and displays the information and an interpretation of the information on the console display.

17. (Amended) The system of claim 12 wherein the memory is used in conjunction of specialized instruments selected from the group consisting of [artery] artery devices, homogenizers and liquifiers.

↓ don't they mean "arteries"?

32. (Amended) A method for implementing surgical procedures in a system including an ultrasonic surgical hand piece having [a] an end-effector with a sheath, a console for controlling the hand piece, and a memory disposed in the sheath of the end-effector which optimizes the generator console for operation with the end-effector to achieve optimal tissue effects with the end-effector, the method comprising the steps of:

reading information stored in the memory;


44. (Amended) A system for implementing surgical procedures comprising:

an ultrasonic surgical handpiece having an end-effector;

a generator console for controlling the handpiece, wherein the console sends a drive current to drive the handpiece which imparts ultrasonic longitudinal movement to the end-effector; and

a memory disposed with a [blade mounting hub] sheath of the end-effector which optimizes the generator console for operation with the end-effector to achieve optimal tissue effects with the end-effector,

wherein the console reads information stored in the memory to determine whether a data string is present, wherein the end-effector is authenticated for use with the handpiece if the data string is present.

Respectfully submitted,

Alphonso A. Collins
Reg. No. 43,559
Attorney for Applicants

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